

L Number	Hits	Search Text	DB	Time stamp
1	34	linear near4 network and (destination near3 node) and counter	USPAT; US-PGPUB; EPO; JPO	2004/03/30 11:03
2	38	chain\$3 near4 network and (destination near3 node) and counter	USPAT; US-PGPUB; EPO; JPO	2004/03/30 13:04
6	1019	((count\$3 near3 (hop)) or (hop-count\$3) or (hopcount\$3))	USPAT; US-PGPUB; EPO; JPO	2004/03/30 11:14
7	111	((count\$3 near3 (hop)) or (hop-count\$3) or (hopcount\$3)) and (without near5 address)	USPAT; US-PGPUB; EPO; JPO	2004/03/30 11:33
8	1557	709/238.ccls.	USPAT; US-PGPUB; EPO; JPO	2004/03/30 11:37
9	185	709/241.ccls.	USPAT; US-PGPUB; EPO; JPO	2004/03/30 11:37
10	18	709/241.ccls. and ((count\$3 near3 (hop)) or (hop-count\$3) or (hopcount\$3))	USPAT; US-PGPUB; EPO; JPO	2004/03/30 12:03
32	63	709/238.ccls. and ((count\$3 near3 (hop)) or (hop-count\$3) or (hopcount\$3))	USPAT; US-PGPUB; EPO; JPO	2004/03/30 12:03
33	1178	traceroute or (trace near3 route)	USPAT; US-PGPUB; EPO; JPO	2004/03/30 13:05
34	272	traceroute	USPAT; US-PGPUB; EPO; JPO	2004/03/30 13:06
36	49	((traceroute or (trace near3 route)) and ((count\$3 near3 (hop)) or (hop-count\$3) or (hopcount\$3)))	USPAT; US-PGPUB; EPO; JPO	2004/03/30 13:06
35	40	traceroute and ((count\$3 near3 (hop)) or (hop-count\$3) or (hopcount\$3))	USPAT; US-PGPUB; EPO; JPO	2004/03/30 13:06



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## Search Results

Search Results for: **[(linear <near/3> network) <and> (hop <near/4> count\*) ]**  
Found **7** of **792** searched out of 129,310.

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Sort by: Title Publication Publication Date Score Binder

Results 1 - 7 of 7 short listing

- 1** Network topology generators: degree-based vs. structural 100%

Hongsuda Tangmunarunkit , Ramesh Govindan , Sugih Jamin , Scott Shenker , Walter Willinger  
**ACM SIGCOMM Computer Communication Review , Proceedings of the 2002 conference on Applications, technologies, architectures, and protocols for computer communications** August 2002  
Volume 31 Issue 4  
Following the long-held belief that the Internet is hierarchical, the network topology generators most widely used by the Internet research community, Transit-Stub and Tiers, create networks with a deliberately hierarchical structure. However, in 1999 a seminal paper by Faloutsos et al. revealed that the Internet's degree distribution is a power-law. Because the degree distributions produced by the Transit-Stub and Tiers generators are not power-laws, the research community has largely dismissed ...
- 2** Randomized distance-vector routing protocol 100%

Sangman Bak , Jorge A. Cobb  
**Proceedings of the 1999 ACM symposium on Applied computing** February 1999
- 3** Virtual path routing for survivable ATM networks 100%

Kazutaka Murakami , Hyong S. Kim  
**IEEE/ACM Transactions on Networking (TON)** February 1996  
Volume 4 Issue 1
- 4** Papers from Hotnets-II: Unmanaged Internet Protocol: taming the edge network 99%

management crisis  
Bryan Ford  
**ACM SIGCOMM Computer Communication Review** January 2004  
Volume 34 Issue 1  
Though appropriate for core Internet infrastructure, the Internet Protocol is unsuited to routing within and between emerging ad-hoc edge networks due to its dependence on hierarchical, administratively assigned addresses. Existing ad-hoc routing protocols address the management problem but do not scale to Internet-wide networks. The promise of ubiquitous network computing cannot be fulfilled until we develop an *Unmanaged Internet Protocol* (UIP), a scalable routing protocol that manages i ...
- 5** Overlays: On selfish routing in internet-like environments 99%

 Lili Qiu , Yang Richard Yang , Yin [redacted] , Scott Shenker  
**Proceedings of the 2003 conference on Applications, technologies, architectures, and protocols for computer communications** August 2003

A recent trend in routing research is to avoid inefficiencies in network-level routing by allowing hosts to either choose routes themselves (e.g., source routing) or use overlay routing networks (e.g., Detour or RON). Such approaches result in *selfish* routing, because routing decisions are no longer based on system-wide criteria but are instead designed to optimize host-based or overlay-based metrics. A series of theoretical results showing that selfish routing can result in ...

## 6 Network Protocols

99%

 Andrew S. Tanenbaum  
**ACM Computing Surveys (CSUR)** December 1981  
Volume 13 Issue 4

## 7 An efficient multicast protocol using de Bruijn structure for mobile computing

99%

 David S. L. Wei , Kshirasagar Naik  
**ACM SIGCOMM Computer Communication Review** July 1997  
Volume 27 Issue 3

In this paper, we design a protocol to efficiently deliver multicast messages to mobile computers. The main concern in the design of such a protocol is to ensure that each message is delivered exactly once to each mobile host in a multicast group. However, the requirements of avoiding multiple delivery of a message, and of a host not missing a message are not easy to efficiently satisfy in a mobile environment. To satisfy these requirements, an earlier work had to actually broadcast a multicast ...

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**Results 1 - 7 of 7      short listing**

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## Search Results

Search Results for: **[traceroute <and> (hop <near/2> count) <AND>(meta\_published\_date <= 07-01-1999 )]**

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## Search within Results




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**Results 1 - 9 of 9**    **short listing**

- 1** End-to-end routing behavior in the Internet
100%




Vern Paxson  
**ACM SIGCOMM Computer Communication Review , Conference proceedings on Applications, technologies, architectures, and protocols for computer communications** August 1996  
 Volume 26 Issue 4


The large-scale behavior of routing in the Internet has gone virtually without any formal study, the exception being Chinoy's analysis of the dynamics of Internet routing information [Ch93]. We report on an analysis of 40,000 end-to-end route measurements conducted using repeated "traceroutes" between 37 Internet sites. We analyze the routing behavior for pathological conditions, routing stability, and routing symmetry. For pathologies, we characterize the prevalence of routing loops, erroneous ...
- 2** End-to-end routing behavior in the Internet
100%



Vern Paxson  
**IEEE/ACM Transactions on Networking (TON)** October 1997  
 Volume 5 Issue 5
- 3** Efficient policies for carrying Web traffic over flow-switched networks
91%




Anja Feldmann , Jennifer Rexford , Ramón Cáceres  
**IEEE/ACM Transactions on Networking (TON)** December 1998  
 Volume 6 Issue 6
- 4** On routes and multicast trees in the Internet
90%




Jean-Jacques Pansiot , Dominique Grad  
**ACM SIGCOMM Computer Communication Review** January 1998  
 Volume 28 Issue 1

Multicasting has an increasing importance for network applications such as groupware or videoconferencing. Several multicast routing protocols have been defined. However they cannot be used directly in the Internet since most inter-domain routers do not implement multicasting. Thus these protocols are mainly tested either on a small scale inside a domain, or through the Mbone, whose topology is not really the same as Internet topology. The purpose of this paper is to construct a graph ...
- 5** Locating nearby copies of replicated Internet servers
89%


-  James D. Guyton , Michael F. Schwartz  
**ACM SIGCOMM Computer Communication Review , Proceedings of the conference on Applications, technologies, architectures, and protocols for computer communication** October 1995  
Volume 25 Issue 4

In this paper we consider the problem of choosing among a collection of replicated servers, focusing on the question of how to make choices that segregate client/server traffic according to network topology. We explore the cost and effectiveness of a variety of approaches, ranging from those requiring routing layer support (e.g., anycast) to those that build location databases using application-level probe tools like traceroute. We uncover a number of tradeoffs between effectiveness, network cos ...

- 6 Organizing multicast receivers deterministically by packet-loss correlation** 83%  
 Brian Neil Levine , Sanjoy Paul , J. J. Garcia-Luna-Aceves  
**Proceedings of the sixth ACM international conference on Multimedia** September 1998

- 7 An extensible probe architecture for network protocol performance measurement** 83%  
 G. Robert Malan , Farnam Jahanian  
**ACM SIGCOMM Computer Communication Review , Proceedings of the ACM SIGCOMM '98 conference on Applications, technologies, architectures, and protocols for computer communication** October 1998  
Volume 28 Issue 4

This paper describes the architecture and implementation of Windmill, a passive network protocol performance measurement tool. Windmill enables experimenters to measure a broad range of protocol performance metrics by both reconstructing application-level network protocols and exposing the underlying protocol layers' events. Windmill is split into three functional components: a dynamically compiled Windmill Protocol Filter (WPF), a set of abstract protocol modules, and an extensible experiment e ...

- 8 An evaluation of TCP with larger initial windows** 82%  
 Mark Allman , Chris Hayes , Shawn Ostermann  
**ACM SIGCOMM Computer Communication Review** July 1998  
Volume 28 Issue 3

TCP's slow start algorithm gradually increases the amount of data a sender injects into the network, which prevents the sender from overwhelming the network with an inappropriately large burst of traffic. However, the slow start algorithm can make poor use of the available bandwidth for transfers which are small compared to the bandwidth-delay product of the link, such as file transfers up to few thousand characters over satellite links or even transfers of several hundred bytes over local area ...

- 9 A case for caching file objects inside internetworks** 77%  
 Peter B. Danzig , Richard S. Hall , Michael F. Schwartz  
**ACM SIGCOMM Computer Communication Review , Conference proceedings on Communications architectures, protocols and applications** October 1993  
Volume 23 Issue 4

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## traceroute

Last modified: Sunday, March 22, 1998

A utility that traces a packet from your computer to an Internet host, showing how many hops the packet requires to reach the host and how long each hop takes. If you're visiting a Web site and pages are appearing slowly, you can use traceroute to figure out where the longest delays are occurring.

The original traceroute is a UNIX utility, but nearly all platforms have something similar. Windows includes a traceroute utility called **tracert**. In Windows 95, you can run **tracert** by selecting **Start->Run...**, and then entering **tracert** followed by the domain name of the host. For example:

tracert [www.pcwebopedia.com](http://www.pcwebopedia.com)

Traceroute utilities work by sending packets with low time-to-live (TTL) fields. The TTL value specifies how many hops the packet is allowed before it is returned. When a packet can't reach its destination because the TTL value is too low, the last host returns the packet and identifies itself. By sending a series of packets and incrementing the TTL value with each successive packet, traceroute finds out who all the intermediary hosts are.

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Yahoo!'s directory of traceroute utilities.

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